Crown Corporation
BUSINESS PLANS
FOR THE FISCAL YEAR 2012–2013

Halifax-Dartmouth Bridge Commission
Business Plan 2012–2013

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Message from the Chair and CEO

It is with pleasure that we submit the business plan for the Halifax-Dartmouth Bridge Commission (operating as Halifax Harbour Bridges, or HHB) for 2012–2013. This fiscal year was a very productive one with many accomplishments, and 2012–2013 is expected to be the same.

On April 1, 2011, the first toll increase in almost 20 years came into effect. It was the first phase of a two-part increase, the second coming into effect April 1, 2012 for MACPASS customers only. Regular passenger vehicles will go from $.70 to $.80 per trip. Customers will pay on average 14% more beginning April 1. Revenue from the toll increase is required to undertake a significant capital and restoration project for the Macdonald Bridge over the next several years. The toll increase will reduce the amount of long-term debt and interest costs incurred from the project.

At the end of 2011, 72.6% of all crossings were made with the MACPASS, compared to 70% in 2010. We will continue to focus on electronic toll collection (MACPASS) to decrease traffic congestion and investigate how we can implement tolling efficiencies and reduce costs by using technology.

Last year $14 million in capital projects were invested in the bridges, with $16 million budgeted in 2012–2013 ($6.9 million of which is designated for work on the Macdonald Bridge suspended span redecking project). These investments are critical for ensuring the long-term safety of the bridges and the travelling public.

There will be a continued focus on minimizing incidents on the bridge and clearing them as quickly as possible when they do occur. We have seen a significant decrease in the number of incidents taking place on the bridges. In 2011 there were 167 reported incidents, compared with 444 in 2010. We attribute this success to our focus on providing relevant information about road conditions and making drivers aware of their driving habits, a strategy that will continue in 2012.

Safety of employees and everyone who works on and around the bridges is a priority for HHB, and in 2011 we were rewarded for our focus on safety. We received a certificate of recognition (COR) from the Workers Compensation Board of Nova Scotia (WCB) following an audit of our health and safety systems. We also were awarded a Mainstay Safety Award from WCB. HHB won the award for the category, Safety Award of Excellence—Individual. HHB's Safety Manager was the recipient.

In 2011, the board of commissioners, working in partnership with HHB management, developed its second strategic plan. This team approach helps us achieve tremendous results and is natural in the evolution of HHB's planning process. The result is a plan that will serve as a roadmap to focus employees and members of the board of commissioners on the steps required to help HHB achieve its goals.

This strategic focus will be of particular importance as we approach the largest capital project to take place since the MacKay Bridge was built in 1970. The entire suspended span of the Macdonald Bridge will be replaced beginning in early 2015 and will take approximately 18 months to complete. HHB will begin to communicate the details of the project broadly in 2012. The project will cost approximately $200 million and will help generate economic activity in the province. It will be only the second time that a project of this nature has been undertaken in North America, and it is expected to generate worldwide interest.

As you will read in this business plan, HHB is well poised for the future. The bridges are vital transportation links and determining factors in the economic development of HRM and the region. We continue to work towards providing world-class innovative transportation solutions.

Wayne Mason,
Chairman of the Board
of Commissioners

Steve Snider
General Manager and CEO

Mission

To provide safe, efficient, and reliable cross-harbour transportation infrastructure at an appropriate cost.

Vision

To be recognized as world-class in the implementation of innovative transportation solutions.

Mandate

The Halifax-Dartmouth Bridge Commission (operating as Halifax Harbour Bridges, or HHB) is the self-supporting entity that operates two toll bridges, the Angus L. Macdonald Bridge and the A. Murray MacKay Bridge. It was created in 1950 by a statute of the Province of Nova Scotia and now operates under a statute passed in 2005. In accordance with Section 27 of the Halifax-Dartmouth Bridge Commission Act:

27 (1) With the approval of the Governor in Council, the Commission may construct, maintain and operate a transportation project across Halifax Harbour and the North West Arm, or either of them.

Core Values

The following values are the essential principles that guide Halifax Harbour Bridges as an organization:

Safety: A fundamental focus and shared responsibility

Stewardship: The protection and maintenance of our bridges

Customer service: Focused on excellence

Respect: Relationships are based on open, truthful, and professional communications

Community: Engagement with and support of our communities

Integrity: Acting honestly, credibly, and accountably

Engagement: Focused on employee development and participation

Leadership: Competent, energetic, and focused

Planning Context

Organizational Structure

The Board of Commissioners for Halifax Harbour Bridges (HHB) has nine members: five are appointed by the Province of Nova Scotia, including the chair and vice chair; and four members are Regional Councillors, appointed by Halifax Regional Municipality. Within the board structure, standing committees provide governance

and direction for audits, maintenance and safety, finance/administration/planning (FAP), and operations, communications, and MACPASS (OCM).

There are 35 permanent staff, and HHB employs approximately 40 painters and 12 gardening staff seasonally. There are also 50 members of Commissionaires Nova Scotia (CNS) who are under contract and have provided operational services to the bridges for 57 years.

Strengths

- Fifty-seven years experience in maintaining and operating suspension bridges
- Strong expertise in electronic toll collection
- Priority given to the safety of employees and everyone who works on and around the bridges
- Financial self-reliance, reporting to the Minister of Finance for the Province of Nova Scotia as a user-pay operation that receives no funding from the provincial government
- Strong ratings with two national rating agencies: a Toll Revenue Debt rating of AA (low) with DBRS; and a long-term issuer credit rating of AA- (stable) with S&P
- Operation of two of the best maintained pieces of infrastructure in the province, thanks to strategic capital investments and a comprehensive maintenance plan
- Reduction of toll plaza congestion through MACPASS, HHB's electronic toll collection system, reducing idling times and benefiting the environment

Weaknesses

- The bridges are reaching their mid-life. As they age they become more expensive to maintain.
- Based on current traffic growth projections the bridges are approaching full capacity, with traffic continuing to grow year after year. There is very little that can be done to HHB infrastructure to ease congestion.
- The potential for additional capacity on the two bridges is limited because of limited access and egress capacity. This is particularly the case on the Macdonald Bridge and the existing adjacent HRM road network.

Opportunities

- HHB continually looks for ways to make crossing the bridges more efficient for the travelling public.
- HHB continues to take a leadership role in finding solutions to manage the demand for transportation.
- HHB continues to participate in the discussion of sustainable transportation in this region and the potential for a greater role in transportation planning.

- HHB looks for ways to improve communications in order to help the public better understand the long-term plans of HHB and the role they play in minimizing incidents on the bridges.
- HHB seeks to broaden the application of MACPASS and MACPASS plus, in ways similar to the model used for parking at the Stanfield International Airport.

Threats

- HHB is vulnerable to adverse economic developments that arise as a result of rising fuel costs or a downturn in the economy. Both can have a negative impact on traffic volumes on the bridges and affect revenue.
- Ensuring the safety of the public and the bridges is of the utmost importance for HHB. In 2009 HHB initiated a three-year state-of-the-art security project.

Strategic Goals

To achieve our vision, four key strategic goals will guide HHB.

Quality and Standards

Our customers, communities, and colleagues will recognize the high quality with which we safely and efficiently operate and maintain the bridges.

Objectives

- Improve safety for employees, contractors, and users
- Exceed standards for maintenance and operations
- Reduce environmental impact

Recognition of Values

Customers will appreciate their experience crossing the bridges.

Objectives

- Decrease the frequency and impact of incidents and the affect on traffic
- Increase quality of customer service
- Improve active transportation

Innovation

The public and government will recognize HHB as a leader in providing innovative transportation solutions.

Objectives

- Increase real-time messaging to the public
- Increase efficiency of toll collection

Leadership

We will be leaders in the workplace and within our communities.

Objectives

- Build our leadership skills
- Increase the level of employee engagement

Core Business Areas

Operational Safety and Emergency Preparedness

Objective: To ensure the safety and security of the traveling public and employees through ongoing reviews and implementation of HHB's policies, procedures, and initiatives.

HHB ensures that the bridges are well maintained and in good condition for the safety of the public. Safety measures include a wind detection system, mobile speed radar, ice-detection sensors, around-the-clock bridge security and traffic enforcement, security cameras, emergency telephones on the Macdonald Bridge, dynamic message signs, and a designated sidewalk and bicycle lane on the Macdonald Bridge.

Focus for 2012–2013

- Implement a traffic awareness campaign focused on the reduction of incidents on HHB facilities.
- Enhance critical infrastructure security levels for all HHB facilities.
- Review and update the strategic direction for emergency management within HHB.

Maintenance

Objective: To ensure the bridges are well maintained and structurally sound.

Each year the two harbour bridges undergo a rigorous inspection to identify maintenance requirements and to ensure that items from previous inspections are being addressed properly. The annual inspection report forms the basis of the three-year maintenance plan.

The major projects completed in 2011 included replacement of traction rods and suspender ropes at the MacKay Bridge, inspection of the MacKay Bridge main cable, and installation of vibration dampers at the MacKay cable bents. The MacKay Bridge suspended span steel-deck life-assessment laboratory work is well underway.

The concrete foundations for the Macdonald Bridge went through an initial due diligence inspection and review related to the upcoming suspended span redecking project. The scope included all of the concrete foundations on the suspended span and approach span. The testing included taking of samples, compressive testing, and laboratory evaluation. The results of the inspection and review will be addressed in concrete restoration work over the next few years.

Focus for 2012–2013

- Conduct concrete restoration of the MacKay anchorages and waterproof the Macdonald and MacKay anchorages
- Replace and improve fencing to complement the security project at both bridges

- Improve and make continuous the roadside barrier systems, to improve roadside safety at both bridges
- Conduct a field monitoring program to provide a better assessment of the MacKay Bridge suspended span deck life

The extensive maintenance at the MacKay Bridge is part of the longer term plan to ensure major maintenance projects are complete in preparation for replacement of the suspended span on the Macdonald Bridge between 2014 and 2016. This is part of HHB's commitment to avoid traffic congestion by ensuring that both bridges are not undergoing significant projects at the same time.

Efficient Transportation

Objective: Maintain convenient and reliable passage by working with stakeholders to identify improvements, which will assist future capacity requirements.

Objective: Continue to actively market electronic toll collection (MACPASS) to decrease traffic congestion and accommodate future traffic growth.

Objective: Increase efficiency of toll collection.

Focus for 2012–2013

- Gain further understanding of how best to implement future tolling efficiencies
- Focus on reducing costs by utilizing technology
- Conduct research to help HHB determine the consequences of moving to an All Electronic Tolling (AET) system, thus eliminating cash as a method of payment. This type of tolling has benefits that may include improvements to safety, the environment, customer experience, service levels, and operational and cost efficiencies
- Throughout 2012 HHB will look at implementing lower cost, higher performance alternatives for maintaining its current toll collection system. Such initiatives may include the replacement of current vehicle classification technology, implementation of new MACPASS toll collection readers, and LED patron fare indicators.

Priorities for 2012–2013

HHB's priorities in support of the core business areas for 2012–2013 are as follows.

Safety and Emergency Preparedness

- Implement a traffic awareness campaign focused on the reduction of incidents on HHB facilities
- Enhance critical infrastructure security levels for all HHB facilities
- Review and update the strategic direction for emergency management within HHB

Maintenance

- Conduct concrete restoration of the MacKay anchorages and waterproof the Macdonald and MacKay anchorages
- Replace and improve fencing to complement the security project at both bridges
- Improve and make continuous the roadside barrier systems, to improve roadside safety at both bridges
- Conduct a field monitoring program to provide a better assessment of the MacKay Bridge suspended span deck life

Efficient Transportation

- Understand how best to implement future tolling efficiencies and focus on reducing costs by utilizing technology
- Conduct research to determine consequences of moving to an All Electronic Tolling (AET) system
- Investigate implementing lower cost, higher performance alternatives for maintaining current toll collection system. Such initiatives may include the replacement of current vehicle classification technology, implementation of new MACPASS toll collection readers, and LED patron fare indicators.

Workplace Safety

- Develop a world-class safety program
- Strive for a workplace with no workplace injuries

Communications

- Continue to build on improving relationships with stakeholders
- Expand tools for communicating with customers
- Share information about the reasons behind the need for the Macdonald Bridge suspended span redecking project

Environmental

HHB will continue to reduce its carbon footprint and engage staff and the public in environmental decision making to gain their support.

Budget Context

	Estimate 2011–12 ($ 000)	Forecast 2011–12 ($ 000)	Estimate 2012–13 ($ 000)
Revenue			
Toll revenue	29,394	28,918	32,087*
Other rate charges	157	163	162
Investment and sundry income:			
Trust fund investments	169	256	269
Other	330	357	350
Investment income	20	70	50
Contributed capital contribution	65	65	65
Total revenue	**30,135**	**29,829**	**32,983**
Expenses			
Operating	6,121	5,865	6,470
Maintenance	3,923	3,086	5,157
Amortization	7,499	6,940	7,209
Debt servicing	2,729	2,637	2,511
Loss (profit) on disposal of property, plant, and equipment	100	1	100
Total expenses	**20,372**	**18,529**	**21,447**
Net operating income	**9,763**	**11,300**	**11,536**
Other comprehensive income	**—**	**149**	**—**
Comprehensive income	**9,763**	**11,449**	**11,536**

* Increase in toll revenue is due to a $0.10 increase in MACPASS tolls to $0.80 per crossing. Revenue from the toll increase is required to undertake a significant capital and restoration project for the Macdonald Bridge over the next several years. The toll increase will reduce the amount of long-term debt and interest costs incurred from the project.

Future Capital Requirements

Year	Amount ($ adjusted for inflation)
2012–13	16,107,000
2013–14	14,608,000
2014–15	43,219,000*
2015–16	70,680,000*
2016–17	72,447,000*
2017–18	26,366,000*
2018–19	3,611,000
2019–20	7,650,000
2020–21	2,593,000
2021–22	5,315,000
2022–23	9,534,000
2023–24	170,313,000**
2024–25	181,725,000**
2025–26	2,933,000
Total capital requirement 2012 to 2026	656,340,000

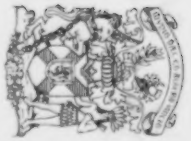
* Macdonald Bridge suspended span re-decking.

** MacKay Bridge suspended span re-decking.

Outcomes and Performance Measures

Core Business Area 1 *Operational safety and emergency preparedness*

Outcome	Measure	Baseline Data	Target	Trends	Strategies to Achieve Target
Implementation of a public safety awareness campaign	Annual MVA statistics and reduction in traffic related incidents	Baseline of 1.2 incidents per 100,000 vehicle kilometers traveled (VKT) 2011 average speeds	Maintain or reduce 2011 VKT statistics Average speeds to decrease: Macdonald: 50 kph MacKay: 70 kph	Incidents 2010: 444 2011: 167 Speeds (kph) MacKay 2009: 71.7 2010: 71.4 2011: 65.0 Speeds (kph) Macdonald 2009: 53.9 2010: 58.0 2011: 52.6	Targeted advertisement and radio campaign Survey of awareness amongst motorists
Development of new security strategy for all HHB facilities	Enhanced coordination of situational awareness for all HHB facilities	Improved operational response to security related threats Enhance interoperability between private and public emergency management professionals	Increased security vigilance on HHB facilities Integrate security responsibilities into all phases of mitigation, response, and recovery	Not applicable—new strategy	Implementation of new high-level security systems Improved communications and planning, between private/ public sector emergency managers of critical infrastructure



Core Business Area 1 *Operational safety and emergency preparedness*

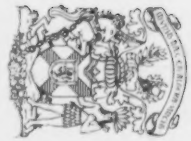
Outcome	Measure	Baseline Data	Target	Trends	Strategies to Achieve Target
Revise emergency management plan for HHB	Establish organizational-wide Emergency Response plan	Emergency management approach in line with current public/private sector initiatives	Development of new comprehensive emergency management plan for HHB	Not applicable—new strategy	Review existing current best practices Revised HHB emergency management plan Train all personnel on new plan

Core Business Area 2 *Maintenance*

Outcome	Measure	Baseline Data	Target	Trends	Strategies to Achieve Target
MacKay Bridge suspended span deck monitoring and test program	Final report	Long-range plan anticipates deck replacement in 2022–2023 Cracks found and repaired in 2009 Deteriorated deck with cracks repaired adjacent main towers in 2010 Fatigue samples taken from deck panels removed from main towers in 2010 Lab test program underway Field monitoring to start spring 2012	2012: 80% 2013: 100%	2011: 25% 2012: 80%	Ensure strain gauge monitoring and fatigue laboratory testing complementary Determine realistic load or deflection criteria
MacKay Bridge anchorage concrete repairs	Final inspection report	Phase over two years—one anchorage each year First phase deferred because tender exceeded budget	2012: 100%	2011: 0%	Comply with noise by-laws Carry out when cold weather concrete protection not required Tender March 2012 to allow full season for extensive concrete work and allow waterproofing in conducive temperatures

Core Business Area 2 *Maintenance*

Outcome	Measure	Baseline Data	Target	Trends	Strategies to Achieve Target
Macdonald Bridge anchorage waterproofing	Final inspection report	Previous materials removed in 2010 to allow concrete inspection Tender documents complete—deferred because tender price exceeded budget	2011: 100% Revised 2012: 100%	N/A	Carry out during summer months in optimum weather conditions Tender with MacKay anchorage work
Fencing replacement and upgrade	Final inspection report	Design substantially completed Trial in 2011 results to be built in	2012: 100%	N/A	Carry out when cold weather concrete protection not required Communicate work to neighbours Tender March 2012 for fence material delivery
Roadside barrier improvements	Final inspection report	Stems from 2009 speed and road safety study Design substantially complete in 2011 First component of road safety improvements Future components will address lighting, speed reduction measures, and signage	2012: 100%	N/A	Define work for off peak periods to minimize disruption to traffic Liaise with HRM and NS where abutting their roads Conduct during conducive temperatures for concrete work



Core Business Area 3 *Efficient transportation*

Outcome	Measure	Base Year	Target	Trends	Strategies to Achieve Target
Increase the efficiency of traffic flow by increasing throughput and reducing congestion	Percentage of MACPASS usage	2001: 32.4%	2012: 74.0%	2001: 32.4% 2002: 39.1% 2003: 43.3% 2004: 47.1% 2005: 49.3% 2006: 52.1% 2007: 55.0% 2008: 65.8% 2009: 68.7% 2010: 70.0% 2011: 72.6%	Increased distribution Provide excellence in customer service